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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/971,989	10/04/2001	Lance W. Russell	10001375-1	3296

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EXAMINER

ELMORE, REBA I

ART UNIT PAPER NUMBER

2187

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/971,989

Applicant(s)

RUSSELL, LANCE W.

Examiner

Reba I. Elmore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/4/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-38 are presented for examination.

Specification

2. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. The claims are objected to because:

the transitional term 'comprising' should be followed by a colon to clearly differentiate between the preamble of the claimed invention and the body of limitations.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-38 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 09/971,135. Although the conflicting claims are not identical, they are not patentably distinct from each other because as shown by the representative claim comparison given below each element of the conflicting claim 1 of the present invention is claimed by application 09/971/135.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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1. A multi-computer system, comprising a plurality of local nodes interconnected by a shared memory, each local node comprising

a local processor;
a local memory;

a local communications protocol stack;
and

a shared memory interface system operable to provide a local shared memory network between the local nodes, and a global shared memory network between the local nodes and one or more

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1. A system providing network infrastructure services, comprising a shared memory facility interconnecting a plurality of network devices each configured to perform a dedicated network infrastructure function. *This is equivalent to the preamble of the conflicting claim as a network infrastructure is directly equivalent to a multi-computer system having a plurality of nodes sharing a memory.*

6. The system of claim 1, wherein each network device is configurable and comprises a local processor and a local memory.

11. The system of claim 6, wherein each network device further comprises:

a local communications protocol stack; and

a shared memory interface system operable to provide a local shared memory network between the network devices, and a global shared memory network between the network devices and one or more

remote nodes by capturing packets from the local communications protocol stacks and routing the captured packets over the shared memory.

remote nodes by capturing packets from the local communications protocol stacks and routing the captured packets over the shared memory facility.

6. Claims 1, 6 and 11 of patent application 09/971,135 contain every element of claim 1 of the present application and as such anticipates the claims of the present application. These claims are given as being representative of all the claims of the conflicting applications.

“A later patent claim is not patentable distinct from an earlier patent claim if the later claim is obvious over, or anticipated by, the earlier claim. In re Longi, 759 F.2d at 896, 225 USPQ at 651 (affirming a holding of obviousness-type double patenting because the claims at issue were obvious over claims in four prior art patents); In re Berg, 140 F.3d at 1437, 46 USPQ2d at 1233 (Fed. Cir. 1998) (affirming a holding of obviousness-type double patenting where a patent application claim to a genus is anticipated by a patent claim to a species within that genus).” ELI LILLY AND COMPANY v BARR LABORATORIES, INC., United States Court of Appeals for the Federal Circuit, ON PETITION FOR REHEARING EN BANC (DECIDED: May 30, 2001).

35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claims 1, 8, 13-14, 16, 18-21, 23-27, 31, 33 and 35-38 are rejected under 35

U.S.C. 102(e) as being anticipated by Morioka et al.

9. Morioka teaches the invention (claims 1, 24 and 38) including a multi-computer system, comprising a plurality of local nodes interconnected by a shared memory, each local node comprising:

a local processor (e.g., see Figure 1);

a local memory (e.g., see Figure 1);

a local communications protocol stack as network protocol (e.g., see col. 8, line 31 to col. 9, line 7); and,

a shared memory interface system operable to provide a local shared memory network between the local nodes, and a global shared memory network between the local nodes and one or more remote nodes by capturing packets from the local communications protocol stacks and routing the captured packets over the shared memory (e.g., see Figures 15-16 and col. 20, line 21 to col. 24, line 24).

As to claims 8 and 35-37, Morioka teaches one or more local nodes comprise one or more physical network adapters for connection to one or more remote nodes as part of the overall network configuration such as a NUMA network, a DASH system or a network using SCI protocol (e.g., see col. 1, line 10 to col. 4, line 39).

As to claims 13 and 14, Morioka teaches the shared memory interface system on each local node supports multicast and broadcast transmissions over the shared memory from the local shared memory network and the global shared memory network; a broadcast ring structure and a multicast ring structure are allocated in shared memory for each of the local and global shared

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memory networks as cluster and inter-cluster communication protocol (e.g., see col. 27, line 55 to col. 8, line 28).

As to claims 16 and 18-20, Morioka teaches the ring structure includes the capability of transmitting and receiving packets as part of the structural capacity (e.g., see Figures 15-16 and col. 20, line 21 to col. 24, line 24).

As to claim 21, Morioka teaches having a read pointer and a write pointer associated with the ring structure as being part of the memory subsystems (e.g., see Figure 16).

As to claims 23, 25-27, 31 and 33, Morioka teaches the shared memory is implemented by a global shared memory facility, a distributed shared memory facility or a logically shared memory facility as part of the overall network configuration such as a NUMA network, a DASH system or a network using SCI protocol (e.g., see col. 1, line 10 to col. 4, line 39).

Claims 2-7, 9-12, 15, 17, 22, 28-30, 32 and 34 are considered to read over the art of record.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reba I. Elmore, whose telephone number is (703) 305-9706. The examiner can normally be reached on M-TH from 7:30am to 6:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor for AU 2187, Donald Sparks, can be reached for general questions concerning this application at (703) 308-1756. Additionally, the official fax phone number for the art unit is (703) 746-7239.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center receptionist whose telephone number is (703) 305-3800/4700.



Reba I. Elmore
Primary Patent Examiner
Art Unit 2187